

Illinois Environmental Protection Agency

Public Notice
Proposed Issuance of New and Revised Construction Permits/
PSD Approvals to Archer Daniels Midland in Decatur

Archer Daniels Midland (ADM) has applied to the Illinois EPA for a construction permit to install steam heating coils on six soy protein product dryers at its Decatur manufacturing complex located at 4666 Faries Parkway in Decatur. ADM has proposed this change to reduce the natural gas usage of the dryers. The production capacity of the dryers would not be affected. Thus, particulate matter (PM) emissions of the dryers would be unchanged and emissions of other pollutants related to fuel combustion would decrease. However, the existing coal-fired boilers at the complex, which will supply the steam for the new steam coils, will experience an increase in utilization and actual emissions. Because this increase in emissions is significant for sulfur dioxide (SO₂), nitrogen oxide (NO_x), carbon monoxide (CO) and PM, the project is considered a major modification subject to the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, for these pollutants

ADM has also applied for a revision to the construction permit for Boiler 9, one of the existing coal-fired boilers affected by the dryer project. The revision would establish alternative emission limits for NO_x and CO for the startup and shutdown of the boiler, when the boiler operates below its normal load.

Based on its review of ADM's applications, the Illinois EPA has made a preliminary determination that this project is entitled to a construction permit. **The Illinois EPA is accepting comments prior to making a final decision on the application for this project. Comments must be postmarked by midnight August 31, 2006.** If sufficient interest is expressed in this matter, a hearing may be held. Comments, questions and requests for information, should be directed to Brad Frost, Bureau of Air, Illinois EPA, Box 19506, Springfield, IL 62794-9506, phone 217/782-2113, TDD 217/782-9143.

Persons wanting more information may view the draft permits and project summaries at www.epa.gov/region5/air/permits/ilonline.htm (please look under All Permit Records, PSD, New). These documents and the application may also be viewed at the Illinois EPA's offices at 2125 S. First Avenue in Champaign, 217/278-5800 and 1340 N. Ninth St., Springfield, 217/782-7027 (please call ahead to assure that someone will be available to assist you). Copies of the documents will be made available upon request.

The dryer project does not trigger a determination of Best Available Control Technology (BACT) under the PSD rules. This is because the existing boilers, which would experience the increases in emissions, would not be undergoing a physical change or change in the method of operation for purposes of the PSD rules.

The consequences of the dryer project for air quality were previously addressed in the processing of the construction permit applications for the “existing” boilers. These boilers were subject to PSD when they were originally permitted and the air quality analyses in the applications showed that the boilers would not endanger ambient air quality. The analysis for the newest boiler at the complex, Boiler 9, showed that impacts of the boilers on NO_x, CO and PM₁₀ air quality are not significant, i.e., the impacts are below the significant impacts levels set by USEPA.. For SO₂, that analysis showed that the SO₂ air quality standards and PSD increments would continue to be met. The maximum predicted ambient SO₂ concentrations, in total considering both existing units, new units and background, were 864, 337, and 54 microgram per cubic meter (ug/m³), compared to the standards of 1300, 365, and 80 ug/m³, on a 3-hour, 24-hour and annual basis, respectively. The maximum predicted consumption of SO₂ increment was 176, 57, and 10 ug/m³, compared to the increments of 512, 91, and 20, on a 3-hour, 24-hour and annual basis, respectively. These results overstate maximum ambient SO₂ concentrations as the application for Boiler 9 also addressed proposed Boiler 10, a second boiler identical in size to Boiler 9, which ADM ultimately decided not to construct. These results also do not account for reductions in SO₂ emission from certain process units at the complex required by a Consent Decree.

The requested changes to certain emission limits for Boiler 9 entail a revision to the original BACT determination for the boiler. A revision of the current NO_x and CO limits is needed to appropriately address startup and shutdown of the boiler. The Illinois EPA has determined that BACT during such periods can be provided by work practices and alternative limits, which restrict the amount of emissions rather than the rate of emissions. This approach would also keep emissions within the levels addressed by the original air quality analysis for Boiler 9.